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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,919	12/27/2000	Chikayoshi Kamata	0941.65074	5081

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EXAMINER

RENNER, CRAIG A

ART UNIT PAPER NUMBER

2652

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,919

Applicant(s)

KAMATA ET AL.

Examiner

Craig A. Renner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 13-21 is/are allowed.
- 6) ☒ Claim(s) 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaguchi et al. (US 6,493,194).

Sakaguchi teaches a magneto-resistive magnetic sensor (FIG. 3, for instance) comprising a magneto-resistive structure (includes 4) changing a resistance thereof in response to an external magnetic field, a cap layer (6c), provided on a top surface of the magneto-resistive structure (as shown in FIG. 3, for instance); a pair of domain-controlling magnetic regions (each 5) disposed at both lateral sides of the magneto-resistive structure (as shown in FIG. 3, for instance), the domain-controlling magnetic regions having a magnetization pointing in a common direction; a pair of electrodes (each 7) provided on the pair of domain-controlling magnetic regions so as to extend on a top surface of the magneto-resistive structure (as shown in FIG. 3, for instance) and so as to oppose each other across a central part of the magneto-resistive structure (as shown in FIG. 3, for instance), the electrodes having respective overhang parts extending over the magneto-resistive structure (as shown in FIG. 3, for instance) so as

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to oppose each other with a gap therebetween (as shown in FIG. 3, for instance), the pair of electrodes injecting a sensing current into the magneto-resistive structure primarily via the top surface of the magneto-resistive structure (as shown in FIG. 3, for instance), wherein each of the overhang parts covers the cap layer on the magneto-resistive structure in such a state that a conductive layer (6d) is substantially entirely interposed in an area between the cap layer and the overhang part (as shown in FIG. 3, for instance); and the pair of domain-controlling magnetic regions having a coercive force exceeding a coercive force of a ferromagnetic layer (4) used in the magneto-resistive structure as a free layer (lines 56-62 in column 5, for instance, i.e., the coercive force of a “hard magnetic material” exceeds that of a “magnetoresistive” material). Sakaguchi, however, remains silent as to the conductive layer being made of an “oxidation-resistant” material.

Official notice is taken of the fact that oxidation-resistant material, such as, gold and copper, for instance, is a notoriously old and well known conductive layer material in the art. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the conductive layer of Sakaguchi be made of an oxidation-resistant material. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have had the conductive layer of Sakaguchi be made of an oxidation-resistant material since such is a notoriously old and well known conductive layer material in the art, and since selecting a known material on the basis of its suitability for the intended use is within the level of ordinary skill in the art, *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Allowable Subject Matter

3. Claims 1-7 and 13-21 are allowable over the prior art of record. Claim 22 would be allowable if applicant were to submit a certified translation in accordance with 37 CFR 1.55 of the foreign priority papers, which predate the filing date of the reference relied upon in the rejection(s), supra. See MPEP § 201.15.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (703) 308-0559. The examiner can normally be reached on Tuesday-Friday 7:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Craig A. Renner
Primary Examiner
Art Unit 2652

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